Ontario Task Force on Hours of Work and Overtime
Groupe d'etude de l'Ontario sur les heures de travail et les heures supplémentaires

Research Report

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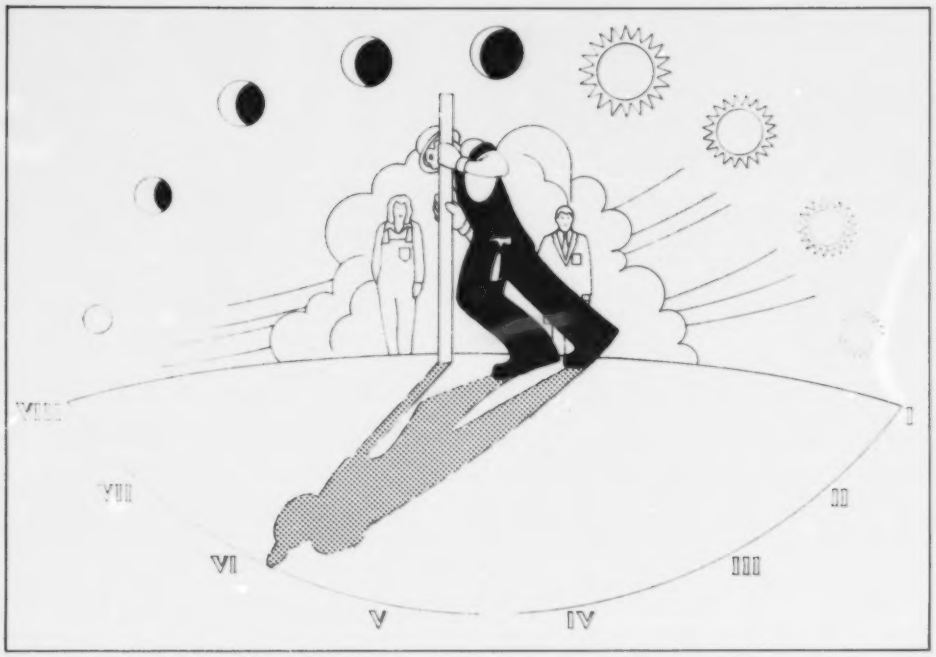

Hours of Work and Overtime in Ontario: The Dimensions of the Issue

HOURS OF WORK AND OVERTIME IN ONTARIO: THE DIMENSIONS OF THE ISSUE

by

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(A Report Prepared for the Ontario Task Force on Hours of Work and Overtime)

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The views expressed in this report are those of the author and need not reflect the position of the Ontario Task Force on Hours of Work and Overtime.

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ABSTRACT: Hours of Work and Overtime in Ontario: The Dimensions of the Issue

Ontario employees average about 1 hour of "overtime or extra hours" per week reflecting about 8 hours of overtime per week worked by about 12 per cent of employees who work overtime. Little fluctuation in overtime occurs over the business cycle -- during 1975-85 average annual overtime varied between 0.9 and 1.1 hours per week. Most overtime work is regular rather than a response to emergencies or cyclical fluctuations. Between 1975-82 and 1983-85 weekly overtime increased slightly from 0.92 hours to 1.02 hours.

Almost 23 per cent of employees worked over 40 hours per week and 11 per cent worked over 48 hours per week in 1985. About 70 per cent of employees working long hours do so regularly rather than in response to cyclical fluctuations. There has also been a slight increase in long-hours work over the 1975-85 period, particularly in the 1983-85 period.

Expenditures on fringe benefits have not increased significantly over the 1975-85 period and so this element of "non-wage" labour costs does not provide an explanation for the observed increase in long-hours and overtime work.

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HOURS OF WORK AND OVERTIME IN ONTARIO: THE DIMENSIONS OF THE ISSUE

INTRODUCTION

The Ontario Task Force on Hours of Work and Overtime was established as the result of a perception in some quarters that a problem of layoffs and unemployment existed at the same time that some employees were working an excessive and perhaps an increasing amount of overtime. The purpose of this report is to provide a description and analysis of hours of work and overtime which will be a useful empirical background in making recommendations concerning potential policies to restrict hours of work and overtime in order to increase employment.

The specific questions addressed in the report include the following: How much overtime is being worked in Ontario? Has the amount of overtime work increased over the last ten years?

Who is working overtime? Is overtime work spread evenly throughout the workforce or is it concentrated in specific occupations, industries, or demographic groups?

Why is overtime being worked? Is it mainly a response to cyclical changes in economic conditions or unexpected emergencies or is it used on a regular, ongoing basis?

Has there been an increase in fringe benefit costs or other "non-wage" labour costs which has provided an incentive for employers to work their existing employees longer hours rather than recall laid off employees or hire new employees?

Similar questions are addressed concerning long hours of work since there may be an excessive level or an increase in long hours of work with or without overtime compensation. The report presents, in the three subsequent major sections, evidence concerning hours of work, overtime hours and nonwage labour costs in Ontario.

HOURS OF WORK

Hours Data from the Labour Force Survey

The most comprehensive source of data on hours of work in Ontario is Statistics Canada's monthly Labour Force Survey (LFS) which has been conducted in its present form since a substantial revision in 1975. The sample of approximately 56,000 households (implying an Ontario sample of about 20,000 households) is selected to be representative of the population 15 years and over (excluding the armed forces, inmates of institutions, and persons living on Indian reserves).

Although the main focus of the LFS questionnaire (included as Appendix A to this report) is establishing the respondent's labour force status (employed, unemployed or not in the labour force), it also contains three questions concerning hours of work and overtime work: Question 13. "How many hours per week does ... usually work at his/her: Main job? Other jobs?" Question 15. "Last week, how many hours of overtime or extra hours did ... work? (Include paid and unpaid time at all jobs.)" Question 18. "How many hours did ... actually work last week at his/her: Main job? Other

jobs?" Special tabulations of the responses to these questions were obtained from Statistics Canada, giving the distribution of actual and usual hours of work for Ontario by full-time/part-time status, sex, industry, and occupation. Annual averages of this unpublished monthly data for the period 1975 to 1985 are presented in Reid (1987).

Owing to space and resource constraints, it was necessary to make certain choices concerning tabulation of the data with respect to the type of worker and categorization of the variables. These choices were based on the main objective of the Task Force, which is to assess the impact of possible changes to employment standards legislation governing hours of work. The hours data relate to employed paid workers since the self-employed and unpaid family workers are not covered by current legislation and are unlikely to be covered in the near future.[1] The hours data also relate to work on the employee's main job rather than all jobs since employment standards legislation has made no attempt to regulate moonlighting. All industries, including agriculture, are represented in the data because, although most farm workers are currently excluded from the hours provisions of the Employment Standards Act (Regulation 284), a number of other industrial and occupational categories are also excluded; it would thus be awkward to present data relating only to currently covered workers. More importantly, the Task Force may also wish to make some judgment about the scope of the current exemptions and the potential impact of altering them.

The distribution of actual hours data in Table 1 indicates that, of the 4,003,100 persons employed during the reference week, 292,000 (7.3 per cent) were not at work owing to reasons such as public holiday, vacation, illness, bad weather, temporary layoff, or a labour dispute. In all tables of this report, unless otherwise noted these workers are excluded from the calculations of the percentage distribution of actual hours worked. No such adjustment is necessary for the percentage distribution of usual hours worked.

The average workweek in Ontario in 1985 was 36.9 hours, but the data reveal a wide variation around this mean. Statistics Canada defines a part-time worker as an employee whose usual hours are between 1 and 29 hours per week (except for employees such as airline pilots or entertainers who may consider themselves fully employed at less than 30 hours work per week). The lower portion of Table 1 shows that 18.9 per cent of paid employees had actual hours of work in this range. Over half of all employees (58.6 per cent) are included in the 30-40 hours per week category -- a range that includes the "standard" 37 1/2 and 40 hour workweek.

Table 1 indicates that 838,000 employees in Ontario (23 per cent of those on the job) worked more than 40 hours per week in 1985. The Ontario Employment Standards Act currently requires time-and-one-half to be paid for work in excess of 44 hours per week, and it requires a permit and consent of

TABLE 1

Employed Paid Workers, by Actual and Usual Hours, Main Job, Ontario, 1985, LFS Data

Hours Category	Total Employed	1-29 Hours	30-40 Hours	41-44 Hours	45-48 Hours	49-59 Hours	60+ Hours	0 Hours	Average Weekly Hours[a]
	Thousands of Workers								
Full-time and part-time									
Actual hours	4003.1	699.3	2174.1	178.9	236.7	252.6	169.5	292.0	36.9
Usual hours	4003.1	639.7	2734.2	116.0	164.9	204.0	144.3	---	37.1
Full-time									
Actual hours	3404.1	159.9	2156.6	178.4	236.2	252.1	169.3	251.4	40.6
Usual hours	3404.1	40.7	2734.2	116.0	164.9	204.0	144.3	---	40.9
	Per Cent							Per Cent Over	
								40 Hrs	44 Hrs	48 Hrs
Full-time and part-time										
Actual hours[a]	100.0	18.9	58.6	4.8	6.4	6.8	4.6	22.6	17.8	11.4
Usual hours	100.0	16.0	68.3	2.9	4.1	5.1	3.6	15.7	12.8	8.7
Ratio usual/actual[b]	1.00	0.85	1.17	0.60	0.64	0.75	0.78	0.69	0.72	0.76
Full-time										
Actual hours[a]	100.0	5.1	68.4	5.7	7.5	8.0	5.4	26.6	20.9	13.4
Usual hours	100.0	1.2	80.3	3.4	4.8	6.0	4.2	18.4	15.0	10.2
Ratio usual/actual[b]	1.00	0.23	1.17	0.60	0.64	0.75	0.78	0.69	0.72	0.76

SOURCE: Unpublished data from Statistics Canada's Labour Force Survey and calculations by the author.

[a] Calculated excluding persons not at work during the reference week -- i.e., employed persons who worked 0 hours.

[b] Ratio is defined as per cent with usual hours in each category divided by the per cent with actual hours in that category

the employee for work in excess of 48 hours per week (although there are many exemptions from the legislation). The data reveal that 4.8 per cent of employees work between 41 and 44 hours per week, and an additional 6.4 per cent work more than 44 hours but are within the 48-hour limit. More than 11 per cent of employees exceeded the 48 hour weekly limit in 1985 and, of these, 4.6 per cent worked 60 hours per week or more. Despite the influence of the "40-hour week," it is clear that a substantial number of employees in Ontario work considerably more than 40 hours. (As shown subsequently, however, many of these are managerial and professional employees who are exempt from the Employment Standards Act).

The data in Table 1 on usual hours of work indicate, as one would expect, that a higher proportion (68.3 per cent) of usual hours than actual hours are in the 30- to 40-hour range, and a lower proportion are in the shorter- and longer-week categories.

A comparison of the distributions of actual and usual hours sheds some light on questions of some importance for policy decisions: to what extent are long hours a response to emergencies and short-term fluctuations in output -- and to what extent are long hours a regular, long-term aspect of the employment relationship? Although 4.6 per cent of those on the job worked 60 or more hours per week, 3.6 per cent of employees indicated that their usual hours are 60 or more, a ratio of usual to actual of 0.78. Similarly, Table 1 indicates ratios of usual to actual hours of 0.60 for those

working 41-44 hours, 0.64 for those working 45-48 hours, and 0.75 for those working 49-59 hours. Overall, for those working in excess of 40 hours per week,the ratio of usual hours to actual hours was 0.69 (15.7 per cent/22.6 per cent = 0.69). It can be concluded that the vast majority of persons working long hours in Ontario does so on a regular basis rather than as a response to unforeseen emergencies or short-term fluctuations in output.

Data on the distribution of actual and usual hours for full-time workers are also presented in Table 1 since full-time workers are the group most affected by employment standards concerning hours of work. Elimination of part-time workers reduces the number of paid employees from 4,003,100 to 3,404,100 and increases the percentage of persons working over 40 hours a week to 27 per cent of full-time employees. A separate distribution for part-time employees is not presented since the usual hours of all part-time employees are, by definition, within the 1-29 hour category, and the vast majority of actual hours of part-time workers on the job (539,400/558,400 = 96.7 per cent) fall within the same category.

Actual Hours by Occupation:

The distribution of actual weekly hours of work by broad occupational group is displayed in Table 2. (The specification of the broad occupational groups is indicated in the "Summary of the Canadian Dictionary and Classification of Occupations [CDCO] System," which appears as Appendix B.) The economy-wide figures discussed above indicated that

TABLE 2

Employed Paid Workers, by Actual Hours, Main Job,
by Occupation, Ontario, 1985, LFS Data

Occupation	Total Employed	1-29 Hours	30-40 Hours	41-44 Hours	45-48 Hours	49-59 Hours	60+ Hours	0 Hours	Average Weekly Hours[a]
					Thousands				
All occupations	4003.1	699.3	2174.1	178.9	236.7	252.6	169.5	292.0	36.9
Manager/professional	1190.5	147.6	618.1	50.8	82.7	109.9	77.1	104.2	39.3
Clerical	746.5	171.8	458.7	25.4	20.8	13.1	5.1	51.5	33.2
Sales	334.3	99.2	140.5	11.9	16.2	26.6	20.4	19.5	34.4
Service	498.1	173.3	226.6	15.9	18.6	16.9	16.8	29.9	31.7
Primary	85.8	15.2	37.4	2.8	6.5	7.6	11.0	5.3	40.8
Processing	658.0	32.2	422.9	44.8	57.8	39.4	13.2	47.6	40.1
Construction	181.0	13.9	112.1	9.9	11.9	14.5	7.8	10.8	39.8
Transportation	137.7	17.2	57.7	7.9	11.7	16.5	15.2	11.6	41.6
Materials & craft	171.2	28.8	99.9	9.4	10.4	8.0	2.9	11.8	36.2
					Per cent[a]			Per cent Over 40 Hrs	Per cent Over 44 Hrs	Per cent Over 48 Hrs
All occupations	100.0	18.9	58.6	4.8	6.4	6.8	4.6	22.6	17.8	11.4
Manager/professional	100.0	13.6	56.9	4.7	7.6	10.1	7.1	29.5	24.8	17.2
Clerical	100.0	24.7	66.0	3.7	3.0	1.9	0.7	9.3	5.6	2.6
Sales	100.0	31.5	44.6	3.8	5.1	8.4	6.5	23.8	20.0	14.9
Service	100.0	37.0	48.4	3.4	4.0	3.6	3.6	14.6	11.2	7.2
Primary	100.0	18.9	46.5	3.5	8.1	9.4	13.7	34.7	31.2	23.1
Processing	100.0	5.3	69.3	7.3	9.5	6.5	2.2	25.5	18.2	8.7
Construction	100.0	8.2	65.9	5.8	7.0	8.5	4.6	25.9	20.1	13.1
Transportation	100.0	13.6	45.8	6.3	9.3	13.1	12.1	40.8	34.5	25.2
Materials & craft	100.0	18.1	62.7	5.9	6.5	5.0	1.8	19.2	13.3	6.8

SOURCE: Unpublished data from Statistics Canada's Labour Force Survey and calculations by the author.

[a] Calculated excluding persons not at work during the reference week -- i.e., employed persons who worked 0 hours.

almost 23 per cent of employees work over 40 hours and 11 per cent work over 48 hours per week. It is evident from Table 2 that the three occupations with a particularly high incidence of long hours are transportation (operators of planes, trains, ships, subways, buses and taxis), in which an astonishing 25 per cent of employees work over 48 hours per week; the primary occupations (fishing, farming, forestry and mining), in which 23 per cent work over 48 hours per week; and managerial and professional employees, in which 17 per cent work over 48 hours per week. Because of the relatively small size of the transportation and primary occupations (3 per cent and 2 per cent of total employees, respectively), they account for a relatively small proportion of total long-hours employees (7.5 per cent and 4.4 per cent, respectively) in spite of their high incidence of long-hours workers. The managerial and professional occupation, in contrast, accounts for 30 per cent of all employees and 44 per cent of employees working in excess of 48 hours per week. It should be noted that managerial employees and most professional employees are exempt from the hours and overtime provisions of the Ontario Employment Standards Act, as are fishing and most farm employees.

The lowest incidence of long-hours work (over 48 hours per week) is found in the clerical, materials and craft, service occupations.

Actual Hours by Industry:

The distribution of hours worked by broad industry group is presented in Table 3. (The specification of the broad

TABLE 3

Employed Paid Workers, by Actual Hours, Main Job, by Industry, Ontario, 1985, LFS Data

Industry	Total Employed	1-29 Hours	30-40 Hours	41-44 Hours	45-48 Hours	49-59 Hours	60+ Hours	0 Hours	Average Weekly Hours[a]
					Thousands				
All industries	4003.1	699.3	2174.1	178.9	236.7	252.6	169.5	292.0	36.9
Agriculture[b]	54.0	13.0	16.3	---	4.7	5.7	10.7	---	41.6
Other primary[b]	52.1	---	33.1	---	---	---	---	4.9	41.3
Manufacturing	995.9	56.0	635.5	58.6	84.3	65.8	25.7	70.0	39.9
Construction	190.9	22.2	101.6	9.1	14.4	20.6	13.2	9.9	39.9
Tran., comm. & util.	290.5	31.1	165.1	14.1	18.2	20.3	16.3	25.5	39.4
Trade	690.4	185.1	324.9	35.4	34.8	41.7	27.8	40.7	34.5
Finance	242.0	33.3	143.2	8.5	11.4	16.8	11.7	17.0	37.7
Service	1195.9	323.3	559.6	35.8	53.4	68.8	55.1	99.8	34.2
Public admin.	291.3	33.1	194.8	13.9	11.9	9.5	6.2	22.0	36.7
					Per cent[a]			Per Cent Over 40 Hrs	44 Hrs	48 Hrs
All industries	100.0	18.8	58.6	4.8	6.4	6.8	4.6	22.6	17.8	11.4
Agriculture[b,c]	100.0	25.8	32.3	---	9.3	11.3	21.2	41.8	41.8	32.5
Other primary[b]	100.0	---	70.1	---	---	---	---	---	---	---
Manufacturing	100.0	6.0	68.6	6.3	9.1	7.1	2.8	25.3	19.0	9.9
Construction	100.0	12.3	56.1	5.0	8.0	11.4	7.3	31.7	26.7	18.7
Tran., comm. & util.	100.0	11.7	62.3	5.3	6.9	7.7	6.2	26.1	20.8	13.9
Trade	100.0	28.5	50.0	5.4	5.4	6.4	4.3	22.0	16.6	10.7
Finance	100.0	14.8	63.6	3.8	5.1	7.5	5.2	21.6	17.8	12.7
Service	100.0	29.5	51.1	3.3	4.9	6.3	5.0	19.5	16.2	11.3
Public admin.	100.0	12.3	72.3	5.2	4.4	3.5	2.3	15.7	10.2	5.8

SOURCE: Unpublished data from Statistics Canada's Labour Force Survey and calculations by the author.

[a] Calculated excluding persons not at work during the reference week -- i.e., employed persons who worked 0 hours.

[b] Missing values indicate employment is less than four thousand and therefore not available from Statistics Canada.

[c] Calculations for agriculture do not exclude those not at work during the reference week since the number is not available.

occupational groups is indicated in "Occupational Groups: Summary of the Standard Industrial Classification [SIC] Coding System; which appears as Appendix C.) Although agriculture has by far the highest incidence of long-hours employment (32.5 per cent work over 48 hours), it accounts for only a small proportion of total long-hours employment (3.9 per cent) since the agriculture industry accounts for such a small share of total paid employment. The bulk of long-hours employment is accounted for by the service and manufacturing industries (29.3 per cent and 21.7 per cent, respectively). Although their incidence of long hours is slightly below average, the large number of employees in these two industries results in a substantial fraction of total long-hours employment.

Actual Hours by Demographic Group:

The breakdown of weekly hours by sex, shown in Table 4, indicates that proportionately more males than females are involved in long hours of paid employment. This presumably results from the traditional division of labour within the family, in which females do a disproportionate amount of the unpaid work in the home.

Over 30 per cent of employed males worked more than 40 hours per week, and, of those, 16.3 per cent worked over 48 hours per week. For employed females, about 12 per cent worked over 40 hours per week and only 5.0 per cent worked over 48 hours per week. The average hours of paid employment for males is 40.2 compared with 32.7 for females.

TABLE 4

Employed Paid Workers, by Actual Hours, Main Job, by Occupation and Sex, Ontario, 1985, LFS Data

Occupation	Total Employed (Thousands)	Per cent of Each Occupation Employed in Each Hours Category						Per cent Over			Average Weekly Hours[a]
		1-29 Hours	30-40 Hours	41-44 Hours	45-48 Hours	49-59 Hours	60+ Hours	40 Hrs	44 Hrs	48 Hrs	
		Per cent[a]									
Males											
All occupations	2242.1	10.5	58.7	5.9	8.5	9.6	6.7	30.7	24.8	16.3	40.2
Manager/professional	657.2	6.6	55.2	5.1	9.5	13.5	10.2	38.3	33.2	23.7	42.1
Clerical	159.7	12.5	69.3	5.8	6.2	4.4	1.7	18.1	12.3	4.4	37.2
Sales	169.3	17.8	47.9	4.9	7.2	13.2	10.0	35.3	30.4	23.2	39.4
Service	233.4	25.6	53.6	5.2	5.4	4.9	5.4	20.9	15.7	10.3	35.4
Primary	..	15.0	48.6	3.3	8.2	9.6	15.3	36.4	33.1	24.9	42.4
Processing	519.1	4.3	67.1	7.9	10.5	7.6	2.6	28.6	20.7	10.2	40.8
Construction	177.7	8.0	65.9	5.9	7.1	8.6	4.6	26.2	20.3	13.2	39.9
Transportation	124.6	9.1	47.2	6.6	9.8	14.1	13.2	43.7	37.1	27.3	43.2
Materials & craft	132.1	17.8	60.5	6.4	7.2	5.9	2.3	21.8	15.4	5.9	36.6
Females											
All occupations	1761.0	29.6	58.5	3.4	3.6	3.2	1.8	12.0	8.6	5.0	32.7
Manager/professional	533.3	22.6	59.1	4.2	5.2	5.8	3.1	18.3	14.1	8.9	35.3
Clerical	586.8	28.1	65.1	3.0	2.1	1.2	0.5	6.8	3.8	1.7	32.2
Sales	165.0	45.9	42.1	2.6	3.0	3.5	2.8	11.9	9.3	6.3	29.2
Service	264.7	47.1	43.8	1.8	2.7	2.5	2.0	9.0	7.2	4.5	28.5
Primary[b]	16.8	32.7	36.3	---	---	---	---	---	---	---	34.0
Processing[b]	139.0	8.8	77.5	5.3	5.7	---	---	---	---	---	37.8
Construction[b]	---	---	---	---	---	---	---	---	---	---	---
Transportation[b]	13.1	51.9	---	---	---	---	---	---	---	---	25.8
Materials & craft	39.1	17.9	65.2	---	---	---	---	---	---	---	34.8

SOURCE: Unpublished data from Statistics Canada's Labour Force Survey and calculations by author.

[a] Calculated excluding persons not at work during the reference week -- i.e., employed persons who worked 0 hours.
[b] Missing values indicate employment is less than 4000 and therefore not available from Statistics Canada.

The longer hours worked by male employees is not caused simply by males being employed disproportionately in occupations in which long hours are worked. The data in Table 4 indicate that males have a substantially higher incidence of long-hours employment within every occupational group. For example, within the managerial and professional group, 23.7 per cent of males report more than 48 hours of paid employment compared with 8.9 per cent of females. Similarly, within the sales occupational group, 23.2 per cent of male employees worked more than 48 hours per week compared with 6.3 per cent of females.

Time Pattern of Weekly Hours:

Table 5 indicates that the average weekly hours of Ontario paid employees (full-time and part-time) have declined slightly over the 1975-85 period. Average weekly hours are affected by both secular and cyclical factors. The secular factor has generally meant a long-run reduction in the average workweek, and the cyclical factor tends to increase average hours in booms and reduce them in recessions. The average hours data in Table 5 indicate that average weekly hours in Ontario were at their lowest point in 1982, when the long-run secular decline was reinforced by a severe recession, and increased somewhat during the 1983-85 economic recovery.

The pattern of average weekly hours for Ontario shown in Table 5 is very similar to the pattern in the Labour Force Survey hours data analyzed by Andrew Sharpe (1986), although 'Sharpe's data relate to employees in the commercial sector

TABLE 5

Actual Hours, Employed Paid Workers, Main Job, and Unemployment Rate, Ontario, 1975-85, LFS Data

Year	Average Weekly Hours (Full- and Part-time)	Average Weekly Hours (Full-time)	Per Cent Working Over 40 Hours[a]	Per Cent Working Over 44 Hours	Per Cent Working Over 48 Hours[a]	Unemployment Rate
1975	37.1	40.0	20.6	15.3	9.0	5.9
1976	36.5	39.4	18.8	14.3	8.4	6.0
1977	36.6	39.6	19.4	14.6	8.8	6.8
1978	37.2	40.2	20.5	15.6	9.4	6.9
1979	37.4	40.7	21.1	16.1	9.9	6.2
1980	36.9	40.2	20.3	15.3	9.6	6.6
1981	36.4	39.7	19.7	14.9	9.3	6.3
1982	36.3	39.8	19.0	14.6	9.3	9.7
1983	36.6	40.4	21.1	16.4	10.6	10.3
1984	36.8	40.5	22.2	17.5	11.1	8.8
1985	36.9	40.6	22.6	17.8	11.4	7.8

SOURCE: Unpublished data from Statistics Canada's Labour Force Survey and calculations by the author.

[a] Calculated excluding persons not at work during the reference week -- i.e., employed persons who worked 0 hours.

for Canada. In both cases, weekly hours reach a minimum in 1982 and then increase until 1985 (by about 0.6 hours), attaining a level roughly equal to the 1980 level. In his theoretical discussion, Sharpe indicates that both secular and cyclical factors influence weekly hours; in his empirical work, however, he includes only a time trend (in various functional forms) to capture the secular decline. Owing to the absence of a cyclical variable in his regression equation, one should be cautious about accepting Sharpe's suggestion that the rise in average hours in the 1982-85 period may indicate a reversal in the downward trend of hours.[2]

The slight secular decrease in average weekly hours in Ontario over the 1975-85 period is the net result of two offsetting trends: the fraction of employees working less than 30 hours per week has increased from 16.0 per cent in 1975 to 18.8 per cent in 1985; and the fraction working more than 40 hours per week has increased by an equivalent amount, from 20.6 per cent in 1975 to 22.6 per cent in 1985.

The data in Table 5 show that, if part-time workers are excluded, there is a secular increase in average weekly hours of full-time employees from 40.0 hours per week in 1975 to 40.6 hours per week in 1985.

Data on the proportion of employees working long hours for the 1975-85 period are presented in Table 5 and illustrated in Figure 1. The proportion working over 48 hours per week has risen gradually over the period, with a clear increase in the 1983-85 period (from an average of 9.2 per

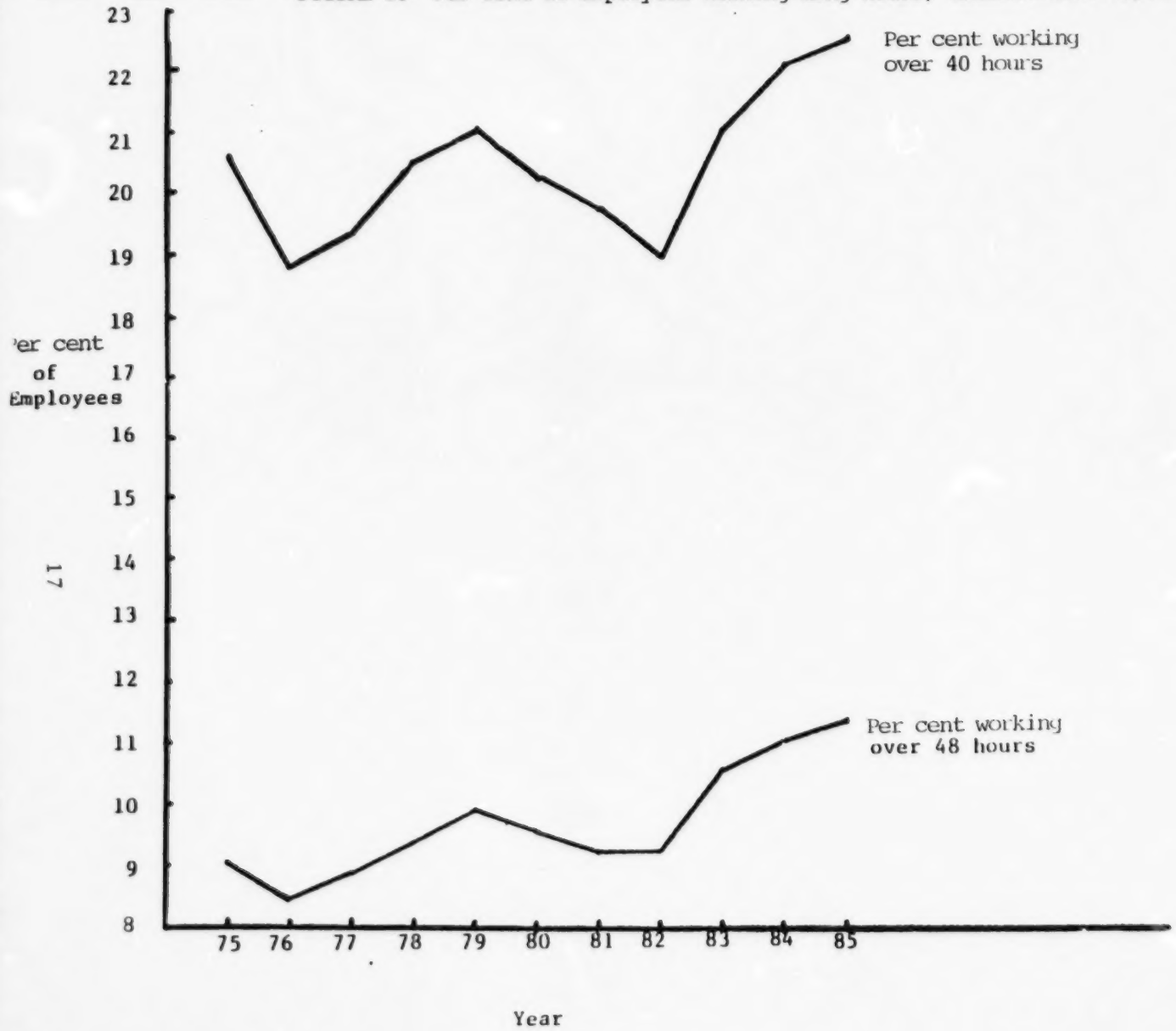
cent in the 1975-82 period to an average of 11.0 per cent in 1983-85). The proportion of employees working over 44 hours also appears to have gradually increased over the 1975-82 period and is significantly higher from 1983 onward (increasing from an average of 15.1 per cent in the 1975-82 period to an average of 17.2 per cent in the 1983-85 period). Similarly, the proportion working over 40 hours has increased from 19.9 per cent to 22.0 per cent over the same period.

The proportion of employees working long hours would normally decline in periods of recession suggesting a negative relationship between long hours and unemployment. Such a negative relationship is illustrated in Figure 2 for certain specific short-run periods. For example, from 1975-77 and 1979-82, when unemployment increased, long hours dropped; conversely, from 1977-79 and 1983-85, when unemployment decreased, long hours increased. What is more noticeable, however, is that in the post-1981 period the structural relationship itself appears to have changed, with the period witnessing a simultaneous increase in both unemployment and long hours. It was this juxtaposition of both long hours and unemployment, and the possible secular increase in long hours, that prompted the establishment of the Task Force.

Hours Data from the Survey of Employment, Payrolls and Hours

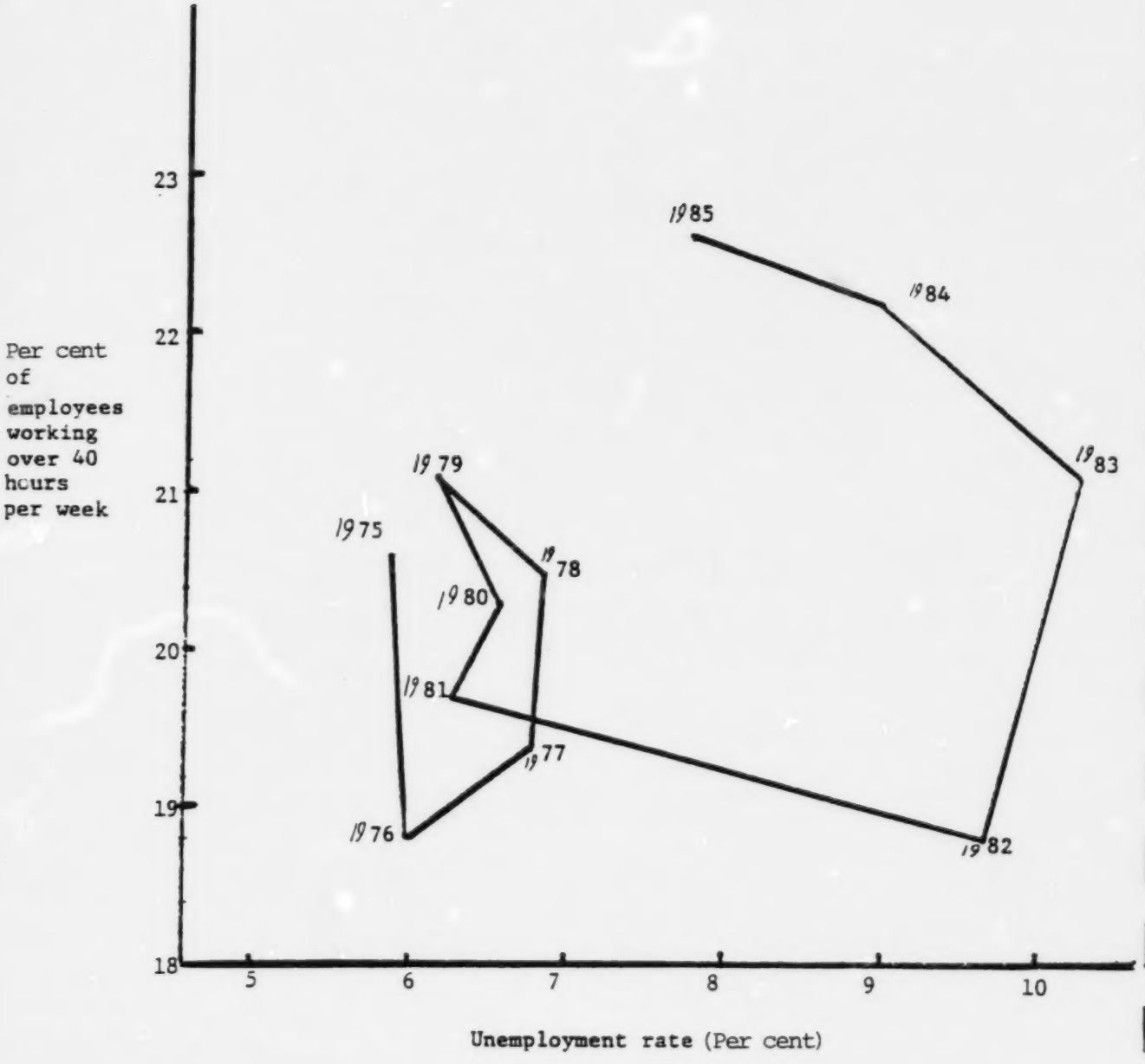
Comprehensive statistics on hours of work and overtime are available through Statistics Canada's monthly Survey of Employment, Payrolls and Hours (SEPH). Information is obtained by means of a questionnaire (included as Appendix D

FIGURE 1. Per cent of Employees Working Long Hours, Ontario 1975-85, LFS Data



SOURCE: Table 5

FIGURE 2. Unemployment Rate and the Per cent of Employees Working over 40 hours Per Week, Ontario, 1975-85, LFS Data



SOURCE: Table 5

NOTE: The year of the observation is indicated next to each point plotted on the graph.

of this report) mailed to a sample of about 70,000 establishments that are representative of firms, institutions, and organizations of all sizes in all industries except agriculture, fishing and trapping, religious organizations, and military services. Data are available on a consistent basis only since April 1983, at which time a substantial revision of the survey took place. Information disaggregated by province and broad industry group is published monthly in Employment, Earnings and Hours (Statistics Canada catalogue 72-002). Unfortunately, no annual averages are provided by Statistics Canada.

The SEPH data provide information, for weekly or other pay periods, on aggregate employment, hours, and overtime hours for hourly paid employees; and on aggregate employment and hours for salaried employees. Included in the employee category are full-time and part-time employees and self-employed owners of incorporated businesses. Excluded are unpaid family members, employees who did not receive any pay during the reference period (e.g., because of a strike or an unpaid leave), and self-employed owners of unincorporated business or professional practices.

Table 6 presents SEPH data on average weekly hours for hourly paid employees (including and excluding overtime) for Ontario in 1985. The average weekly hours for hourly paid employees in all industries is 33.1, somewhat below the average of 36.9 hours indicated by the LFS data for all paid employees. A comparison of the hours by industry indicates that average weekly hours for the SEPH data are slightly

TABLE 6

Average Weekly Hours, Hourly Paid Employees, by Industry
Ontario, 1985, SEPH Data

Industry	Average Weekly Hours Excluding Overtime	Average Weekly Hours Including Overtime
All industries (excl. Agriculture)	32.1	33.1
Forestry	38.4	40.6
Mines, quarries, and oil wells	38.6	40.4
Manufacturing	37.9	39.8
Construction	37.5	38.7
Transportation and communications	36.7	38.1
Trade	27.8	28.3
Finance	26.3	26.8
Service	27.1	27.5

SOURCE: Statistics Canada, Employment, Earnings and Hours, catalogue 72-002, monthly issues and calculations by the author.

below those for the LFS data in the forestry, mining, construction, and transportation and communications industries. The SEPH data are substantially lower for the trade, finance, and service industries. Presumably these differences mainly reflect the difference between hourly-paid and salaried workers.

OVERTIME WORK

Overtime Data from the Labour Force Survey Data

Time Pattern of Overtime Work:

Responses to question 15 of the LFS questionnaire (see Appendix A),concerning the "hours of overtime or extra hours" that the individual worked during the reference week, do not provide a pure measure of overtime work since the question includes extra hours as well as overtime, and unpaid as well as paid work, and relates to all jobs rather than the main jobs only. The LFS data do, however, provide a consistent measure that should indicate changes in overtime work over time, to the extent that the various components do not change in relative importance.

Table 7 indicates that for Ontario over the 1975-85 period there has been a rise in the incidence of overtime -- i.e., the number of persons working overtime or extra hours as a percentage of paid employment. The incidence of overtime increased from an average of 11.3 per cent in the 1975-82 period to 12.4 per cent in the 1983-85 period. The average duration of overtime -- i.e., the average number of weekly overtime hours or extra hours worked by those individuals who worked overtime -- has also increased

slightly, from an average of 8.1 hours per week in 1975-82 to an average of 8.2 hours per week in 1983-85. As a result of these two changes, average overtime hours -- i.e., the product of overtime incidence and average overtime duration-- has increased from 0.92 hours per week in 1975-82 to an average of 1.02 hours per week in 1983-85.

The data of Table 7 also indicate another important phenomenon: the bulk of the overtime is worked by a few people (10-12 per cent of the workforce) who work a substantial amount of overtime (about 8 hours per week). That is, the average of about an hour of overtime per week is not evenly distributed across the workforce. A small number work substantial overtime while most work none. One would normally expect average overtime hours to decline in periods of high unemployment but the rise in average overtime hours in 1982-85 occurred despite the relatively high unemployment rate during that period. The relationship between the unemployment rate and average overtime hours is illustrated in Figure 3. The graph clearly shows an increase in both average overtime hours and unemployment in the 1983-85 period and also suggests a structural change in the underlying relationship between these two variables. The pattern of change is very similar to that for the proportion of persons working long hours, which was illustrated in Figure 2.

The data in Table 7 show a clear rise in weekly overtime work, averaging about 0.1 hours per week. The figure increases to 0.2 hours per week when one compares the highest year, 1985 -- when overtime averaged 1.07 hours per week --

TABLE 7

Overtime or Extra Hours, Employed Paid Workers, Ontario, 1975-85, LFS Data

Year	Employment	Number Working Overtime	Incidence of Overtime[a]	Average Duration of Overtime[b]	Average Overtime Hours[c]	Unemployment Rate
	Thousands	Thousands	Per cent	Hrs./wk.	Hrs./wk.	Per cent
1975	3277.7	378.9	11.6	8.0	0.92	5.9
1976	3341.3	353.7	10.6	8.1	0.86	6.0
1977	3372.5	368.5	10.9	8.2	0.90	6.8
1978	3473.4	397.1	11.4	8.1	0.93	6.9
1979	3621.3	427.9	11.8	8.1	0.96	6.2
1980	3691.2	427.5	11.6	8.0	0.93	6.6
1981	3806.9	454.3	11.9	8.1	0.97	6.3
1982	3706.7	400.6	10.8	8.1	0.88	9.7
1983	3727.3	440.0	11.8	8.1	0.96	10.3
1984	3859.6	488.0	12.6	8.2	1.04	8.8
1985	4003.1	518.0	12.9	8.3	1.07	7.8

SOURCE: Unpublished data from Statistics Canada's Labour Force Survey and calculations by the author.

[a] Incidence of overtime is defined as the number working overtime as a per cent of employment.

[b] Average duration of overtime is defined as the average weekly hours of overtime per person who worked overtime.

[c] Average overtime hours is the average weekly hours of overtime per person employed. It is calculated as a product of the incidence and the average duration of overtime.

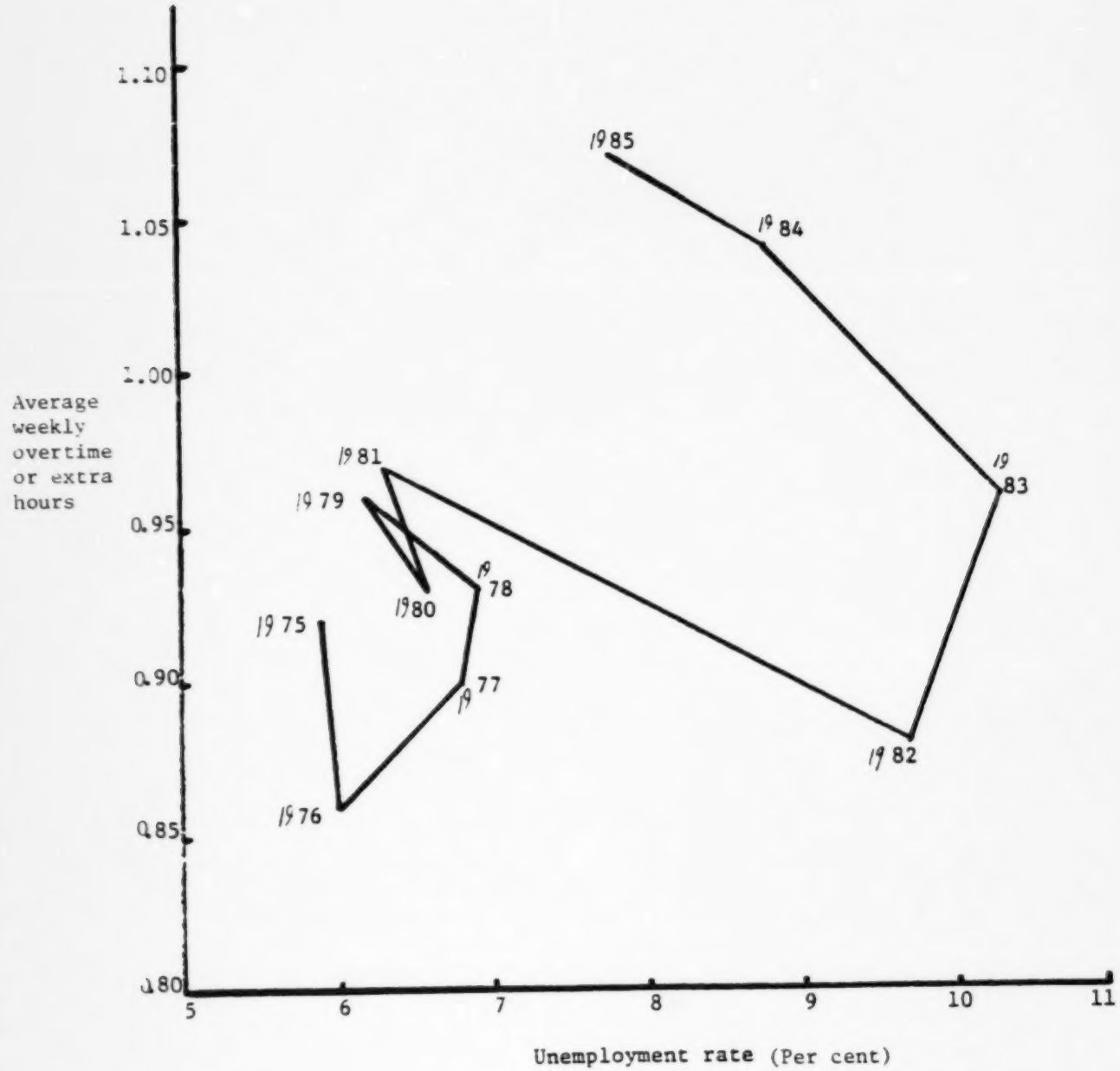
to the lowest year, 1976 -- when overtime averaged 0.86 hour per week. There are, however, different possible interpretations of the significance of a rise of such a magnitude. On the one hand, a rise of 0.2 hours per week from a base of 0.86 overtime hours per week constitutes an increase of 23 per cent, a substantial proportionate rise in the amount of overtime work. On the other hand, an increase of 0.2 hours per week from a base workweek of 37 hours per week constitutes a rise of only one-half of one per cent of total work time. From this perspective one might say that the most remarkable feature of the LFS overtime data for the last decade is not the slight rise in overtime in the 1983-85 period but the relative stability of overtime work over the business cycle, especially if contrasted with changes in the unemployment rate. The evidence suggests that, as with long-hours work, most overtime work in recent years is not a response to emergencies or short-term fluctuations in output.

The rather surprising stability of overtime work across seasons has been noted by Statistics Canada (1977, p.55) in a feature article analyzing unpublished monthly data on overtime and extra hours during the 1975-77 period.

> The monthly fluctuations in overtime do not appear to follow a seasonal pattern. The percentage working overtime tends to be very stable, ranging from 9.1% (April, 1976) to 12.6% (September, 1975) of those at work in the reference week.

The conclusion is that overtime work appears to be surprisingly insensitive to both seasonal and cyclical fluctuations in economic activity.

FIGURE 3. Unemployment and Average Weekly Overtime Hours, Ontario, 1975-85, LFS Data



SOURCE: Table 6

NOTE: The year of the observation is indicated next to each point plotted on the graph.

Occupational Pattern of Overtime Work:

The broad occupational groups with relatively high average overtime or extra hours, as indicated by the data in Table 8, are the managerial and professional group, transportation workers, and workers in the processing occupations (e.g., processing of minerals, chemicals, wood, and food). The three occupational groups with relatively low average overtime hours are the service, clerical and sales groups. The relative position of the various occupations is similar to that for long-hours work except for the primary occupations, which are relatively high in terms of average hours worked but below average for overtime. (A detailed breakdown of overtime work in Ontario by occupation, sex, age, and full-time/part-time status is given in Reid 1986).

Industrial Pattern of Overtime Work:

Table 9 indicates that the highest incidence of overtime and the highest average overtime hours are in manufacturing, followed by transportation and communications, and then primary industries other than agriculture. (A disaggregation by industry, sex, age, and full-time/part-time status is given in Reid (1986).

The pattern differs somewhat from the industrial distribution of long-hours work in the LFS data displayed in Table 3 above. In the hours data, agriculture and the construction industries were among the top three in terms of incidence of long hours. The fact that these two industries

TABLE 8

Overtime or Extra Hours, by Occupation, Ontario, 1985, LFS Data

Occupation	Employment	Number Working Overtime	Incidence of Overtime[a]	Average Duration of Overtime[b]	Average Overtime Hours[c]
	Thousands	Thousands	Percent	Hrs./wk	Hrs./wk.
All occupations	4003.1	518.0	12.9	8.3	1.07
Manager/professional	1190.5	177.5	14.9	8.6	1.28
Clerical	746.5	78.7	10.5	6.8	0.72
Sales	334.3	36.2	10.8	8.5	0.92
Service	498.1	40.4	8.1	8.6	0.70
Primary	85.8	8.2	9.6	10.2	0.97
Processing	658.0	106.5	16.2	8.3	1.34
Construction	181.0	23.5	13.0	8.8	1.14
Transportation	137.7	21.4	15.5	8.6	1.34
Materials and crafts	171.2	25.6	15.0	8.1	1.21

SOURCE: Unpublished data from Statistics Canada's Labour Force Survey and calculations by the author.

[a] Incidence of overtime is defined as the number working overtime as a per cent of employment.

[b] Average duration of overtime is defined as the average weekly hours of overtime per person who worked overtime.

[c] Average overtime hours is the average weekly hours of overtime per person employed. It is calculated as a product of the incidence and the average duration of overtime.

TABLE 9

Overtime or Extra Hours, by Industry,
Ontario, 1985, LFS Data

Industry	Employment	Number Working Overtime	Incidence of Overtime[a]	Average Duration of Overtime[b]	Average Overtime Hours[c]
	Thousands	Thousands	Per Cent	Hrs./wk	Hrs./wk
All industries	4,003.1	518.0	12.9	8.3	1.07
Agriculture	54.0	5.8	10.7	9.7	1.04
Other primary	52.1	6.5	12.5	10.4	1.30
Manufacturing	995.9	168.3	16.9	8.3	1.40
Construction	190.9	22.3	11.7	9.0	1.05
Tran., comm. & util.	290.5	42.9	14.8	8.4	1.24
Trade	690.4	79.2	11.5	7.8	0.89
Finance	242.0	28.6	11.8	7.4	0.87
Service	1,195.9	129.5	10.8	8.4	0.91
Public admin.	291.3	35.1	12.0	7.8	0.94

SOURCE: Unpublished data from Statistics Canada's Labour Force Survey and calculations by the author.

[a] Incidence of overtime is defined as the number working overtime as a per cent of employment.

[b] Average duration of overtime is defined as the average weekly hours of overtime per person who worked overtime.

[c] Average overtime hours is the average weekly hours of overtime per person employed. It is calculated as a product of the incidence and the average duration of overtime.

are below average in overtime hours suggests a longer standard workweek in these industries.

Overtime Work by Demographic Group:

The data in Table 10 indicate that, for both males and females, the prime-age groups (25-54 years) have the highest average overtime hours, and the older age groups (55+) have the lowest overtime hours. The data also show that most of the variation in overtime and extra hours among age groups results from differences in the incidence of overtime rather than differences in the average duration of overtime work.

The data also reveal that average overtime hours for males (1.31 hours per week) is over 70 per cent higher than average overtime hours for females (0.76 hours per week). Average overtime hours for males exceeds that for females in every age category and, in fact, the average hours of the lowest-ranked male group (55+) is virtually equal to the average overtime hours of the highest-ranked female groups (25-34). The detailed data by age, occupation, and sex, given in Reid (1986), indicate that higher average overtime hours for males than females is observed for virtually all age, sex, and occupational categories. As with the differences between age groups, the differences between average overtime hours of males and females are primarily due to differences in the incidence of overtime, not to the average duration of overtime work.

TABLE 10

Overtime or Extra Hours, by Demographic Group,
Ontario, 1985, LFS Data

Sex and Age Group	Employment	Number Working Overtime	Incidence of Overtime[a]	Average Duration of Overtime[b]	Average Overtime Hours[c]
	Thousands	Thousands	Per Cent	Hrs./wk	Hrs./wk
Both sexes	4003.1	518.0	12.9	8.3	1.07
15 - 24 years	890.4	98.4	11.1	7.7	0.85
25 - 34 years	1106.6	173.0	15.6	8.2	1.28
35 - 44 years	917.3	132.1	14.4	8.7	1.25
45 - 54 years	641.9	73.2	11.4	8.5	0.96
55+ years	446.9	41.4	9.3	8.0	0.74
Males	2242.1	336.8	15.0	8.7	1.31
15 - 24 years	457.1	56.1	12.3	8.3	1.02
25 - 34 years	616.3	114.3	18.5	8.7	1.61
35 - 44 years	516.6	89.7	17.4	9.1	1.58
45 - 54 years	370.2	47.8	12.9	8.9	1.15
55+ years	281.9	28.8	10.2	8.3	0.85
Females	1761.0	181.3	10.3	7.4	0.76
15 - 24 years	433.2	42.3	9.8	7.0	0.68
25 - 34 years	490.3	58.6	12.0	7.2	0.86
35 - 44 years	400.8	42.5	10.6	8.0	0.85
45 - 54 years	271.7	25.3	9.3	7.6	0.71
55+ years	165.0	12.5	7.6	7.2	0.55

SOURCE: Unpublished data from Statistics Canada's Labour Force Survey and calculations by the author.

[a] Incidence of overtime is defined as the number working overtime as a per cent of employment.

[b] Average duration of overtime is defined as the average weekly hours of overtime per person who worked overtime.

[c] Average overtime hours is the average weekly hours of overtime per person employed. It is calculated as a product of the incidence and the average duration of overtime.

Overtime Data from the Survey of Employment, Payrolls and Hours

Industrial Pattern of Overtime Work:

The SEPH data on overtime work by industry for Ontario, 1985, are displayed in Table 11. Average overtime hours for all industries is 1.0 hour per week, very close to the 1.07-hour average for all industries indicated in the LFS data in Table 9. The similarity of the two estimates is somewhat of a coincidence, however, since the SEPH data relate to hourly paid employees and the LFS data relate to all paid employees. Although hourly employees generally work more overtime than salaried employees, the LFS data include paid and unpaid "extra hours," which are likely to be higher for salaried employees. It appears that the impact of these two factors is roughly offsetting, producing a virtually identical estimate of "overtime" for all industries in the two surveys.

The ranking of overtime hours by industry in the SEPH data in Table 11 is broadly similar to the ranking in the LFS data in Table 9. In both data sets, forestry, mining, manufacturing, transportation and communications are above the economy-wide average; and trade, finance, and service are below average. The variance of the distribution is greater in the SEPH data, however, with the highly ranked industries almost double the average and the low ranked industries about half the average. In the LFS data the highest-ranked industries are about 30 per cent above average and the lowest

TABLE 11

Overtime Hours, by Industry, Hourly Paid Employees, Ontario, 1985, SEPH Data

Industry	Average Weekly Overtime Hours	Overtime Hours as a Proportion of Total Hours
		Per Cent
All industries (excl. agriculture)	1.0	3.0
Forestry	2.2	5.4
Mines, quarries, and oil wells	1.8	4.5
Manufacturing	1.9	4.8
Construction	1.1	2.8
Transportation and communications	1.5	3.9
Trade	0.5	1.8
Finance	0.5	1.9
Service	0.4	1.5

SOURCE: Statistics Canada, Employment, Earnings and Hours, catalogue 72-002, monthly issues and calculations by the author.

TABLE 12

Average Weekly Earnings and Overtime Earnings, Hourly Paid Employees, by Industry, Ontario, 1985, SEPH Data

Industry	Average Weekly Earnings, Including Overtime	Average Weekly Earnings, Excluding Overtime	Average Weekly Overtime Earnings	Overtime Earnings as a Proportion of Total Earnings
	Dollars	Dollars	Dollars	Per Cent
All industries (excl. agriculture)	343.54	326.01	17.52	5.1
Forestry	648.34	602.94	45.40	7.0
Mines, quarries, and oil wells	617.07	583.44	33.63	5.4
Manufacturing	462.38	428.10	34.28	7.4
Construction	519.96	497.24	22.72	4.4
Transportation and communications	515.25	485.59	29.66	5.8
Trade	218.45	212.26	6.18	2.8
Finance	213.81	207.51	6.29	2.9
Service	231.41	227.32	4.09	1.8

SOURCE: Statistics Canada, Employment, Earnings and Hours, catalogue 72-002, monthly issues and calculations by the author.

about 10 per cent below average. Presumably these differences result from the conceptual differences outlined above -- i.e., overtime for hourly paid workers in the SEPH compared with overtime and extra hours for all employees in the LFS data.

Information on weekly earnings and overtime earnings of hourly paid employees by industry for Ontario for 1985 is presented in Table 12. For all industries, overtime earnings comprise 5.1 per cent of total earnings. As one would expect, the industries with the highest degree of overtime usage (forestry, mining, manufacturing, and transportation and communications) also rank highest in term of overtime earnings as a per cent of total earnings.

Time Pattern of Overtime Work:

Table 13 shows a steadily increasing pattern of weekly overtime hours (0.90, 0.97, and 1.03) over the period 1983-85, based on the SEPH data. The pattern is very similar to that exhibited in the LFS data on weekly overtime hours in Table 7 for the same three years: 0.96, 1.04, and 1.07. Although the LFS estimate of overtime hours is slightly higher in each year, the magnitude of the increase is virtually identical (0.13 over the three years in the SEPH data compared with 0.11 in the LFS data). The close correspondence of the SEPH and LFS data over the three-year period for which both are available is reassuring and increases confidence in the LFS data for the entire 1975-85 period.

TABLE 13

Average Overtime Hours, by Industry,
Ontario, 1983-85, SEPH Data

Industry	Average Weekly Overtime Hours		
	1983[a]	1984	1985
All industries (excl. agriculture)	0.90	0.97	1.03
Forestry	1.67	2.29	2.20
Mines, quarries, and oil wells	1.48	1.57	1.80
Manufacturing	1.71	1.77	1.90
Construction	0.81	0.97	1.14
Transportation and communications	1.33	1.63	1.48
Trade	0.38	0.47	0.50
Finance	0.46	0.43	0.48
Service	0.27	0.28	0.40

SOURCE: Statistics Canada, Employment, Earnings and Hours, catalogue 72-002, monthly issues and calculations by the author.

[a] Figures for 1983 relate to last nine months of the year only.

The industrial disaggregation of the SEPH data in Table 13 reveals that the rise in average weekly overtime hours in Ontario over the 1983-85 period was not an isolated phenomenon -- overtime hours increased in every industry. The magnitude of the increases ranged from a rise of only 0.02 hours per week in finance to a rise of 0.53 hours per week in forestry. In general, the goods industries, which are more cyclical, exhibited larger increases than the service industries.

Annual Work Patterns

In this sub-section of the report, the focus is on weeks worked per year rather than hours worked per week. Data from the monthly LFS do not provide a measure of annual hours worked per employee. Webber (1985) computes annual hours by multiplying the number of weeks in the year by the annual average of hours per week (in which the annual average is the average of the 12 monthly reference weeks). These calculations yield average annual hours per full-year worker, but they do not indicate the average annual hours for all workers because many workers are not employed for a full year.

A measure of annual work per worker is available, however, from Statistics Canada's Annual Work Patterns Survey (AWPS), which is conducted in January as a supplement to the LFS and requests information on each individual's work experience throughout the previous year. Data are available for the years 1977 to 1980 and the years 1983 to 1985 (the

AWPS was not conducted in 1981 and only partial results of the 1982 survey were published).

Table 14 indicates that in 1985, the average Ontario labour force member worked 42.4 weeks per year (i.e., 82 per cent of the year). The 9.6 weeks during which the average individual was not employed is composed of 3.1 weeks of unemployment and 6.5 weeks when the individual was not in the labour force.

In terms of the demographic breakdown, Table 14 indicates that males over age 25 had the longest annual employment (approximately 47.5 weeks per year).

The time pattern of annual weeks of employment is very likely affected by both secular and cyclical factors. The rise in annual weeks worked between 1983 and 1985 experienced by every demographic group likely reflects the partial recovery of the economy over that period. Secular trends are not easily discerned in this short data series.

NONWAGE LABOUR COSTS

The Importance of Nonwage Labour Costs

Nonwage labour costs are defined by Hart (1984, p. 1) as "... those categories of the firm's total labour costs that comprise other than direct remuneration. They include fringe benefits, obligatory social welfare contributions, expenditures on recruitment and training as well as many other special cost items." Some nonwage labour costs (e.g., health insurance premiums) are a fixed amount per employee. An employer's total expenditure on quasi-fixed costs varies with changes in the number of employees but not with changes

TABLE 14

Annual Weeks Employed, Per Person in the Labour Force at Some Time During the Year, Ontario, 1977-85, Selected Years, by Demographic Group

Year	Both Sexes	Males				Females			
		All Ages	15-24 Years	25-44 Years	45+ Years	All Ages	15-24 Years	25-44 Years	45+ Years
1977	43.1	45.1	35.0	49.1	48.1	40.4	34.1	42.4	44.8
1978	42.3	44.4	34.6	48.1	47.7	39.3	32.9	41.6	43.7
1979	42.5	44.5	34.8	48.5	47.5	39.9	33.3	42.0	44.4
1980	42.7	44.5	34.3	48.2	48.1	40.2	34.1	42.1	44.6
1983	41.3	42.7	31.9	46.1	46.4	39.5	32.8	41.6	43.4
1984	41.7	43.1	31.6	46.9	46.3	40.1	32.3	42.5	43.7
1985	42.4	44.0	33.2	47.4	47.5	40.5	33.9	42.5	43.7

SOURCE: Statistics Canada, Catalogue 71-531, Occasional Patterns of Full- and Part-Year Employment and Unemployment: Results of the Annual Work Patterns Survey 1977 to 1980, and Catalogue 71-001, The Labour Force, July 1985 and March 1986.

in hours per employee. Such costs are known as quasi-fixed costs because, conceptually, they are between fixed costs (overhead), which do not vary with the amount of output, and variable costs (e.g., straight time wages), which vary with the number of hours of labour utilized.

Quasi-fixed costs are an important consideration in analysis of hours of work and overtime because an employer attempting to produce a given level of output at the minimum possible cost will choose between hiring additional employees and increasing the hours of those already employed on the basis of the relative cost of the two options. The greater the quasi-fixed costs, the more expensive it is to hire new employees and so the greater the incentive to increase the average hours of existing employees, other things constant.

The most comprehensive survey on employee benefit costs in Canada is Statistics Canada's Labour Costs Survey. It is based on a sample of over 8,000 establishments and provides disaggregation by province, industry, and other categories. Unfortunately, the Labour Costs Survey is undertaken only periodically; the most recent survey is for the year 1978, published in 1981. The data in Table 15 show that employer expenditure on all employee benefits for Ontario in 1978 added 35 per cent to basic pay for straight time worked. A disaggregation by industry in Ontario is included in Appendix E.

Not all employee benefit costs are quasi-fixed costs. Following the principles used by Hart (1984) in his analysis

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Not all employee benefit costs are quasi-fixed costs. Following the principles used by Hart (1984) in his analysis of nonwage labour costs in the U.K. and the United States, paid absence, miscellaneous direct payments, and the

TABLE 15

Employee Benefits by Category, Ontario, 1978,
Statistics Canada Labour Costs Survey Data

	Annual Expenditure per Employee	Expenditure as Per cent of Basic Pay	Expenditure as Per cent of Gross Payroll
	Dollars	Per cent	Per cent
Pay for time worked	13,268	106.9	86.8
Basic pay for regular work	12,414	100.0	81.2
Commissions, incentive bonuses	239	1.9	1.6
Overtime	520	4.2	3.4
Shift and other premium pay	95	0.8	0.6
Paid absence	1,556	12.5	10.2
Paid holidays	581	4.7	3.8
Vacations	786	6.3	5.1
Other paid absence	189	1.5	1.2
Miscellaneous direct payments	461	3.7	3.0
Gross payroll[a]	15,284	123.1	100.0
Employee welfare and benefit plans	1,533	12.3	10.0
Workers' compensation	190	1.5	1.2
Unemployment insurance	209	1.7	1.4
CPP/QPP	161	1.3	1.1
Private pension plans	668	5.4	4.4
Life and health insurance	266	2.1	1.7
Other benefit plans	41	0.3	0.3
Total compensation[a]	16,817	135.5	110.0

SOURCE: Statistics Canada (1981), Catalogue 72-619, Employee Compensation in Canada 1978, pp. 54-55.

[a] Totals may not sum due to rounding.

nonstatutory benefit plans are regarded as quasi-fixed costs. The classification of statutory benefits (unemployment insurance, workers' compensation, and the Canada Pension Plan) is somewhat ambiguous because in Canada, as in several other countries, contributions are proportional to earnings up to a ceiling level of earnings for each employee. If, on the one hand, the ceilings are low relative to average earnings, then contributions are essentially a "fixed" amount per employee (the ceiling level) and the statutory benefits are a quasi-fixed cost to the employer. If, on the other hand, the ceilings are well above average earnings, then the contributions to the statutory benefits will be a variable cost. Since the ceiling levels in Ontario are near average earnings, the statutory benefit costs are allocated equally between quasi-fixed and variable costs. The result of these calculations is that quasi-fixed benefit costs added about 22 per cent to straight-time earnings in Ontario in 1978.

More recent data on employee benefit costs are available in a biennial survey conducted by the Pay Research Bureau (PRB), an affiliate of the federal government's Public Service Staff Relations Board, and in a biennial survey conducted by Thorne, Stevenson and Kellogg Management Consultants (TSK). For both surveys, 1984 is the most recent year for which data are available. Since the sample sizes are considerably smaller than the Statistics Canada survey (148 establishments in the 1984 TSK survey and 160 in the 1984 PRB survey), breakdowns by province are not available. In this report the analysis concentrates on the TSK data

because an industry disaggregation is provided and expenditure data are available for a longer time series than in the PRB data. The PRB data for the year 1984 are included as Appendix F. A comparison of the three data sets for the year 1978 (when all were available) showed the results were broadly consistent.

Table 16, based on the TSK data, indicates the mean expenditure per employee for each benefit at those establishments which provide the benefit. It also shows the per cent of establishments providing each benefit.[3] The sum of expenditures for all benefits is equivalent to 32.5 per cent of the gross payroll. The most important categories are paid time off (14.9 per cent of gross payroll) and pension and insurance plans (9.4 per cent of gross payroll).

The distribution of benefit expenditures by industry reported in Table 17 indicates that the utilities industry has the highest level of benefits (38 per cent of gross payroll) and the construction industry and the retail and wholesale trade industry have the lowest level (27 per cent of gross payroll).

The time pattern of employee benefit expenditure based on TSK data is shown in Table 18 for selected years over the 1954-84 period. The table reveals a rapid rise in benefit expenditures from 15.1 per cent of gross payroll in 1954 to 32.4 per cent in 1978. The series levels out after 1978, however, and no significant rise is observed over the 1978-84 period. This suggests that the substantial increase in overtime hours that occurred since 1982 was not caused by any

TABLE 16

Employee Benefits, by Category, as Percentage of Gross Payroll, Canada, 1984, TSK Data

Benefit Category	Benefit as Per cent of Gross Payroll[a]	Per cent of Establishments Providing Benefit[b]
All benefits[c]	32.5	---
Paid time off[c]	14.9	---
Vacations	6.4	100
Holidays	3.8	100
Rest periods	3.9	91
Bereavement, jury duty	0.1	100
Other paid time off	0.8	100
Statutory contributions[c]	4.4	---
Unemployment insurance	2.1	100
Workers' compensation	1.2	96
CPP/QPP	1.2	100
Pension and insurance plans[c]	9.4	---
Private pension plans	4.1	95
Insurance plans	5.2	---
Cash benefits[c]	2.7	---
Severance and savings	1.1	86
Bonus and profit sharing	1.7	---
Other noncash benefits	1.0	---

SOURCE: Thorne, Stevenson and Kellogg Management Consultants, Employment Benefit Costs in Canada 1984, Toronto: Thorne, Stevenson and Kellogg, pp. 14, 22.

[a] Average expenditure calculated for those establishments providing the benefit, i.e., excluding establishments with nil expenditure.
[b] The per cent of establishments providing benefit calculation is not relevant for items which represent groups of benefits.
[c] Totals may not sum due to rounding.

TABLE 17

Employee Benefits by Major Category, by Industry, Percentage of Gross Payroll, Canada, 1984, TSK Data

	All Benefits	Paid Time Off	Statutory Contributions	Pension and Insurance Plans	Cash Benefits	Other Noncash Benefits
	Per cent of gross payroll					
All industries	32.5	14.9	4.4	9.4	2.7	1.0
Mining	33.5	16.6	5.5	10.0	0.6	0.9
Manufacturing	33.8	14.8	4.6	9.4	3.8	1.1
Construction	26.8	10.9	5.4	5.3	4.4	0.9
Transportation	32.5	16.9	3.8	10.3	0.7	0.8
Utilities	38.0	17.2	4.1	14.0	1.0	1.7
Trade (retail & wholesale)	27.1	11.5	4.1	7.3	3.7	0.5
Finance	31.6	13.9	3.3	9.0	4.1	1.2
Hospitals	28.5	16.1	4.2	7.4	0.2	0.7
Education	29.8	17.0	3.3	9.0	0.2	0.2
Government	31.0	15.3	3.8	9.5	1.0	1.3
Municipalities	33.1	14.2	5.4	12.3	0.5	0.7
Other nonmanufacturing	32.1	16.1	3.4	8.9	2.7	1.0

SOURCE: Thorne, Stevenson and Kellogg Management Consultants, Employee Benefit Costs in Canada 1984, Toronto: Thorne, Stevenson and Kellogg, pp. 14, 22.

TABLE 18

Total Employee Benefits as a Percentage of Gross Payroll, Canada, 1954-84, Selected Years, TSK Data

Year	All Industries	Manufacturing	Nonmanufacturing
1954	15.1	14.3	17.5
1958	15.6	16.2	17.2
1962	22.8	23.4	26.5
1966	23.1	23.0	22.8
1970	27.9	27.2	28.6
1974	28.1	28.3	28.0
1976	31.1	32.1	30.2
1978	32.4	32.2	32.5
1980	33.1	31.5	34.6
1982	32.7	31.8	33.5
1984	32.5	33.8	31.3

SOURCE: Thorne, Stevenson and Kellogg Management Consultants, Employee Benefit Costs in Canada 1984, Toronto: Thorne, Stevenson and Kellogg, 1984, pp. 12-13.

dramatic increase in quasi-fixed fringe benefit costs, at least from those fringe benefit costs in this data set. It is possible that other nonwage labour costs, such as hiring, training, and termination expenses, could have been important; however, systematic data series are not available on these items to test that hypothesis.

The Rationale for Nonwage Labour Costs

Since the quasi-fixed component of nonwage labour costs is an important determinant of optimal hours and employment, it is of some interest to ask why employers provide benefits as part of the total compensation package rather than providing the same level of compensation purely in wages.

Basic economic theory suggests that payment in wages is preferable to equivalently valued compensation in the form of any particular benefit, because the employee receiving the wage income is free to purchase any good or service that suits his or her needs. Since the basic theory assumes the employee has the option of purchasing the benefit if desired, the employee who receives compensation in the form of wages cannot be made worse off than an employee receiving compensation in the form of benefits. Since this basic economic principle favours pure wage compensation, significant forces must be at work to cause the employer to provide a substantial amount of total compensation in the form of benefits.

For the statutory benefits (unemployment insurance, workers' compensation, and CPP), a simple explanation is that the employer is legally required to contribute. The question

then arises as to why governments have chosen to provide such programs through the public sector -- and why they have chosen to finance them through a payroll tax rather than from general revenues. The answer is beyond the scope of this report, although there is one important aspect of the statutory programs that deserves consideration. The existence of ceilings on the payroll taxes converts them from a variable cost to a quasi-fixed cost for those employees with earnings above the ceiling. The motivation behind ceilings on contributions to as well as benefits from the statutory programs is to prevent employees with very high incomes from drawing an unseemly high benefit from UI, WC, or CPP. The purpose of the ceiling could be achieved, however, without the unfortunate side-effect of increasing quasi-fixed costs and thereby encouraging longer hours of work and lower levels of employment. The solution is to specify the ceiling in terms of hourly earnings rather than weekly or annual earnings.

Legislation may also affect other elements of nonwage labour costs through requirements for a minimum paid vacation and a minimum number of paid statutory holidays. Hart (1984, p. 12) regards the statutory minimums as exogenously determined by the government and considers any benefits provisions beyond these statutory minimums as endogenously determined through the collective bargaining process. Although this is a convenient and defensible procedure, the issue is somewhat more complicated. One could, for example, argue that if the parties negotiate a vacation provision

above the statutory minimum, then the statute is a nonbinding constraint which has no impact on the observed level of vacations. This argument would lead to classifying the entire vacation expenditure as endogenous in those situations in which it exceeds the minimum. Conversely, in those situations in which an employer is paying the statutory minimum, one should not regard the minimum provision itself as the exogenous component of nonwage costs. Rather, the difference between the statutory minimum and the amount the employer would have provided in the absence of the legislation is the true impact of the legislation.

The costs of hiring and training employees is, to some extent, an exogenous element determined by the firm's technology. In a larger time frame, however, the firm may have some choice among alternative technologies, implying that training costs have some endogenous component.

To the extent that employee benefits are treated more favourably by the tax system than are earnings, an incentive is created to emphasize benefits in the compensation package.

Economists (e.g. Oi 1962, Becker 1964, Okun 1981, Hart 1984) have noted that employers have an incentive to negotiate compensation packages which will reduce turnover and thereby reduce the firm's expenditures on hiring and training costs. Pension plans with incomplete vesting are an example of such an item in nonwage labour costs: an employee who leaves the firm before the vesting period will forgo the employer's pension contribution.

Whether the employer's pension contribution is a quasi-fixed cost, however, depends on the particulars of the plan. On the one hand, a defined benefit plan with benefits related to earnings near retirement would be a quasi-fixed cost since extra hours of work during the current period would not increase the amount of the employee's pension (unless the employee were close to retirement). On the other hand, a defined contribution pension plan with contributions proportional to earnings and no ceiling would be a pure variable cost.

It appears that both privately negotiated and government-legislated benefits have generally been implemented with a full-time, standard workweek employee in mind. The result is that in some cases provisions may have been inadvertently included which cause the benefit to become a quasi-fixed cost with unfortunate and unintended consequences for employment. There may be a role for public policy in facilitating or encouraging rather minor modifications to the provisions of these benefits. Such modifications, while removing an unintended and undesirable side-effect of the provisions, would not alter their essential character. Recommendations for such policy changes are analyzed in more detail in Reid (1987).

SUMMARY

The key findings of the report are the following:

- Unpublished Labour Force Survey data indicate a tremendous variation in the number of hours worked per week in Ontario in 1985: 19 per cent of employees worked fewer than 30 hours per week, and 23 per cent worked more than 40 hours per week; within the latter group, 11 per cent worked more than 48 hours per week.
- The great majority of employees working long hours (about 70 per cent) do so on a regular basis rather than in response to seasonal, cyclical, or other temporary fluctuations in output.
- Managerial, professional, agricultural, and other employee groups exempt from the hours provisions of the Ontario Employment Standards Act account for the bulk of work in excess of 48 hours per week.
- In the past decade in Ontario, there has been an increase (from 21 to 23 per cent) in the proportion of employees working more than 40 hours per week and a simultaneous increase (from 16 to 20 per cent) in the proportion working fewer than 30 hours per week. The increase in long-hours work is most pronounced in the 1983-85 period, particularly when correcting for the effect of the business cycle.
- Unpublished Labour Force Survey data for Ontario indicate that about 12 per cent of paid employees work an average of 8 hours per week of "overtime or extra

hours." The average for all employees is thus about 1 hour of "overtime or extra hours" per week.

- The amount of overtime work shows very little fluctuation over the business cycle -- during the 1975-85 period the proportion of employees working overtime has only varied between 11 and 13 per cent, and average overtime hours per week has only varied between 0.9 and 1.1 hours. The implication is that, as with long-hours work, most overtime work is done on a regular basis rather than as a response to short-term cyclical or seasonal fluctuations.
- Over the 1975-85 period, there has been a slight increase in average overtime hours, and, as with long hours work, the increase is concentrated in the 1983-85 period.
- To the extent that nonwage labour costs are quasi-fixed costs (i.e., a fixed amount per employee), they provide an incentive for cost-minimizing employers to reduce employment and increase average hours per employee.
- Nonwage labour costs are a significant proportion of total compensation in Ontario (adding over 30 per cent to straight-time wage costs), but the available evidence indicates no significant increase in employee benefit costs since 1978.
- Certain provisions in legislated or negotiated employee benefits (e.g., weekly ceilings on earnings subject to contribution for unemployment insurance) can inadvertently change benefit expenditure from a variable

cost to a quasi-fixed cost, with unfortunate disemployment incentives. Policy initiatives may be appropriate to encourage modification of provisions (e.g., relating ceilings to hourly rather than weekly earnings), which would reduce or eliminate the inadvertent employment disincentives.

NOTES

1. The definition of an "employee" in the Ontario Employment Standards Act (section 1(c)) "...includes a person who, (i) performs any work for or supplies any services to an employer for wages, (ii) does homework for an employer, or (iii) receives any instruction or training in the activity, business, work, trade, occupation or profession of the employer."

2. The absence of a cyclical variable may have caused the estimated regression line to be pulled down by the low hours in 1982, causing hours in 1983-85 to seem abnormally high. In econometric terms, there is an omitted variable which may be causing a bias in the estimated coefficient of the explanatory variable.

3. In the TSK data, averages are calculated excluding establishments which do not provide the benefit because many users of the survey wish to compare their expenditure on a particular benefit with expenditure by other employers providing the benefit. Statistics Canada and the PRB provide averages both including and excluding the establishments with nil expenditure on a particular benefit, but this practice was discontinued by TSK after 1973. In 1973, the last year for which TSK

provided estimates using both methods, the average benefit costs were 28.1 per cent excluding nil expenditure establishments and 22.8 per cent including them. (The Thorne Group, Fringe Benefit Costs in Canada 1973, p. B1.)

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